

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently amended) A sealed rechargeable battery, comprising:
a metal case having an elliptical or rectangular cross section;
a metal sealing plate for sealing an opening at one end of the case; and
an electrode plate assembly, the electrode plate assembly being housed in the case together with an electrolyte solution, both longer side faces of the case including continuous or discontinuous projecting ridges which are disposed in opposed respective positions of said side faces between a bottom face opposite to the opening and said opening, said projecting ridges extending to the bottom face and to the opening;
wherein said electrode plate assembly includes positive and negative electrode end faces, one of the electrode end faces and the sealing plate are connected to each other by welding portions between the opposed projecting ridges, and the bottom face of the case and the other electrode end face are connected to each other by welding portions between the opposed projecting ridges each for connection with a one of said end face and said sealing plate by welding portions extending between said first and said second side faces, and

a periphery of said sealing plate includes outwardly projecting portions corresponding to the projecting ridges whereby said welding portions are formed over substantially a full width of the positive and negative electrode faces.

2. (Previously Presented) The sealed rechargeable battery according to claim 1, wherein:

the electrode plate assembly is constituted by laminating a positive electrode plate and a negative electrode plate with a separator interposed therebetween such that a core substrate of the positive electrode plate and a core substrate of the negative electrode plate project to sides opposite to each other;

both end faces of the electrode plate assembly, constituted by edges of the core substrates of the positive electrode plate and the negative electrode plate, are connected to the bottom face of the case and the sealing plate; and

an insulating gasket is interposed between the case and the sealing plate.

3. (Previously Presented) The sealed rechargeable battery according to claim 2, wherein:

a connection flange is formed on an outer peripheral edge of the sealing plate in an upwardly extending manner;

the gasket is attached so as to cover an end face and inner and outer side faces of the connection flange; and

the sealing plate is provided in the opening of the case, and the opening of the case is inwardly bent so as to cover the connection flange to seal the case.

4. (Previously Presented) The sealed rechargeable battery according to claim 3, wherein each of the projecting ridges has a discontinuity near the opening of the case forming a projecting ridge non-formation portion, whereby a position of the sealing plate is regulated by the projecting ridge non-formation portion.

5. (Previously presented) The sealed rechargeable battery according to claim 1, wherein at least one connection projection is formed on the bottom face of the case and the sealing plate.

6. (Previously presented) The sealed rechargeable battery according to claim 1, wherein:

the electrode plate assembly is constituted by laminating a positive electrode plate and a negative electrode plate with a separator interposed therebetween such that a core substrate of the positive electrode plate and a core substrate of the negative electrode plate project to sides opposite to each other;

current collectors are connected to both end faces of the electrode plate assembly, constituted by edges of the core substrates of the positive electrode plate and the negative electrode plate;

elastic connecting pieces, being pressed against the bottom face of the case so as to be in contact therewith, are provided for the current collector facing the bottom face of the case; and

at least one connection projection penetrating the sealing plate through an insulating member is provided for the current collector on the opening side of the case.

7. (Previously presented) The sealed rechargeable battery according to claim 6, wherein at least one connection projection is provided on the bottom face of the case.

8. (Previously presented) The sealed rechargeable battery according to claim 1, wherein intervals of the projecting ridges and a cross section thereof are selected to impart sufficient strength and rigidity to the side faces of the case to inhibit a predetermined amount of deflection at a minimum under influence of a predetermined internal pressure of the battery.

9. (Previously presented) The sealed rechargeable battery according to claim 2 or 6, wherein the end faces of the electrode plate assembly and the bottom face of the case and the sealing plate or the current collectors are welded to each

other between the projecting ridges at the positions where the projecting ridges are provided on both side faces.

10. (Previously presented) The sealed rechargeable battery according to claim 1, wherein spaces are formed between both ends of the case in a major axis direction of its cross section and the electrode plate assembly, respectively.

11. (Previously Presented) A battery module including a plurality of the sealed rechargeable batteries according to claim 5 or 7, wherein:

the sealed rechargeable batteries are arranged in a row such that the bottom face of the case and the sealing plate face each other; and

the connection projections provided on the bottom face of the case and the connection projections provided on the sealing plate or the connection projections penetrating the sealing plate to project beyond the sealing plate are welded so as to connect the sealed rechargeable batteries with each other, whereby the projecting ridges are disposed along external exposed sides faces of the battery module.

12. (Previously presented) The battery module according to claim 11, wherein an insulating member is provided in an outer peripheral region of a gap between the bottom face of the case and a sealed portion of the sealed rechargeable batteries connected with each other.

13. (Currently Amended) A sealed rechargeable battery, comprising:

a case including an end face and an opening at an opposite end of the case, and further including opposed first and second side faces, a case axis extending through said end face and said opposite end;

a sealing plate for sealing said opening; and

an electrode plate assembly housed in the case, said first and second side faces of the case including projecting ridges arranged codirectionally with said case axis and which are disposed in opposed respective positions of said first and second side faces between said bottom face and said opening in said opposite end, end portions of said projecting ridges extending to the bottom face and to the opening;

wherein said electrode plate assembly includes positive and negative electrode end faces, one of the electrode end faces and the sealing plate are connected to each other by welding portions between the opposed projecting ridges, and the bottom face of the case and the other electrode end face are connected to each other by welding portions between the opposed projecting ridges each for connection with a one of said end face and said sealing plate by welding portions extending between said first and said second side faces, and

a periphery of said sealing plate includes outwardly projecting portions corresponding to the projecting ridges whereby said welding portions are formed over substantially a full width of the positive and negative electrode faces.

14. (Previously presented) The battery module according to claim 13, wherein said projecting ridges are discontinuous between said end face and said opposite end.

15. (Previously presented) The battery module according to claim 13, wherein said projecting ridges have a trapezoidal cross-sectional shape.

16. (Cancelled)